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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/015,404      | 12/12/2001  | Takashi Ito          | S004-4479           | 4066             |

7590 06/04/2003  
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EXAMINER

EDWARDS, ANTHONY Q

ART UNIT PAPER NUMBER

2835

DATE MAILED: 06/04/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/015,404

Applicant(s)

ITO ET AL.

Examiner

Anthony Q. Edwards

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 9 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S.

Patent No. 5,260,915 to Houihan. Referring to claim 1, FIGS. 3 and 4 of Houlihan show an arm wearable communication device (10), comprising a communication device or wireless communication circuit contained in a case or housing (20b) for transmitting and receiving a signal. Furthermore, column 3, lines 21-24 of U.S. Patent No. 4,847,818 to Olsen, which is incorporated by reference, discloses a wearable body (20c) pivotally mounted (at 30b) to the communication device case to enable wearing the communication device on a user's arm. Houlihan also discloses a sound unit (52) provided in the wearable body, and an antenna, disposed between the sound unit and the communication device body and which is provided in the wearable body. See col. 3, lines 30-33 of Olsen for the disclosure of the claimed antenna.

Referring to claim 3, Houihan discloses an arm wearable communication device, wherein the wearable body has a curved part having a curvature, which is smaller than a curvature of a part of the user's arm when the curved part of the wearable body is held to the user's arm, and the antenna is provided in the curved part. See FIG. 2 and the corresponding specification.

Referring to claims 9 and 10, Houlihan discloses an arm wearable communication device, wherein the body (20c) comprises a wrist strap (see FIG. 1), and wherein the wearable bodies comprise connectable parts (i.e., at 30a and 30b) of a wrist strap.

Claim 8 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,569,879 to Gloton. Gloton discloses a dielectric chip antenna comprising a substrate formed of a mixture of a high dielectric material and resin; and a conductor foil pattern formed on the substrate. See column 2, lines 44-59.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Houlihan in view of U.S. Patent No. 5,943,020 to Liebendoerfer et al. Referring to claim 2, Houlihan discloses all of the claimed elements of the wearable communication device, except for the communication device body adapted to compare the reception states of signals that are respectively obtained from a plurality of the antennas provided in a plurality of bodies. Liebendoerfer et al. disclose an antenna for use in a dielectric block of a radiotelephone. See column 6, lines 47-49. As such, it is the examiner's opinion that comparing reception states, as claimed, is equivalent to receiving two adjacent frequencies (i.e., dual frequency mode), which is also disclosed by Liebendoerfer et al. See column 6, lines 51-53. It would have been obvious to

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one of ordinary skill in the art at the time the invention was made to modify the wearable communication device having a plurality of pivotally fixed arm wear bodies (20a and 20c), and a plurality of antennas disposed therein, of Houlihan, to include a communication device body adapted to compare the reception states of signals, as taught by Liebendoerfer et al, to provide dual frequency mode reception.

Referring to claim 4, as indicated above, Houlihan discloses an arm wearable communication device, wherein the wearable body has a curved part having a curvature which is smaller than a curvature of a part of the user's arm when the curved part of the wearable body is held to the user's arm, and the antenna is provided in the curved part. See FIG. 2 and the corresponding specification.

Claims 5-7 and 11-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Houlihan in view of Gloton et al. Referring to claims 5-7 and 11, Houlihan discloses all of the claimed elements of the wearable communication device, except for a dielectric chip the antenna comprising a substrate formed of a mixture of a high dielectric material and a resin, and a conductive foil pattern formed on the substrate. Gloton discloses the claimed dielectric chip antenna. See column 2, lines 44-59 and the Abstract. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the wearable type communication device of Houlihan to include an antenna comprising a substrate formed of a mixture of a high dielectric material and a resin, and a conductive foil pattern formed on the substrate, as taught by Gloton et al., to provide a flat antenna for use in portable telephones.

Referring to claims 12 and 15, Houlihan in view of Gloton et al. disclose an arm wearable device, further comprising a display (42) and operating buttons (44) for controlling and

connecting to the wireless communication circuit provided in a front surface of the housing (20b). See FIG. 1 and the corresponding specification.

Referring to claim 13, Houlihan in view of Gloton et al. disclose an arm wearable device, wherein the arm band has a pair of substantially c-shaped members at first ends of the opposite sides of the housing (see FIG. 2), and wherein the chip antenna is located in the c-shaped member (see the patent to Olsen, which is incorporated by reference in Houlihan).

Referring to claim 16, Houlihan in view of Gloton et al. disclose an arm wearable device, wherein the wireless communication device comprises a telephone. See column 1, lines 20-25.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Houlihan in view of Gloton et al., and further in view of Liebendoerfer et al. Houlihan, as modified, discloses all the claimed elements, except for the communication device body adapted to compare the reception states of signals that are respectively obtained from a plurality of the antennas provided in a plurality of bodies. As mentioned above, Liebendoerfer et al. disclose an antenna for use in a dielectric block of a radiotelephone. See column 6, lines 47-49. As such, it is the examiner's opinion that comparing reception states, as claimed, is equivalent to receiving two adjacent frequencies (i.e., dual frequency mode), which is also disclosed by Liebendoerfer et al. See column 6, lines 51-53.

### ***Conclusion***


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent Nos. 5,228,012 and 5,218,577 to Seager disclose wristwatch telephones having chip antennas disposed in pivotally affixed bands of the wristwatch. U.S. Patent No. 6,529,713 to Seymour discloses a wearable handset capable of communication.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Q. Edwards whose telephone number is 703-605-4214. The examiner can normally be reached on M-F (7:30-3:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (703) 308-4815. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 306-5511 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-9929.

aqe  
May 30, 2003

  
DARREN SCHUBERG  
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